IN THE CLAIMS:

1. (currently amended) A method of limiting current, said method comprising:

providing an AC sine wave to at least one heater element of an electric clothes dryer;

stopping said providing at a zero crossing of the AC sine wave;

monitoring the AC sine wave for a subsequent zero crossing; ~~and~~

reproviding the AC sine wave to the at least one heater element at the subsequent zero crossing, wherein said reproviding comprises reproviding the AC sine wave to the at least one heater element at a zero crossing more than two half cycles subsequent the zero crossing at which the AC sine wave was stopped; and

monitoring a dryer inlet air temperature, a dryer outlet air temperature, a dryer outlet humidity, and a moisture level within the dryer drum to control ~~controlling~~ said stopping and said reproviding to maintain one of a predetermined dryer inlet air temperature to dryer outlet humidity relationship, a predetermined dryer outlet air temperature to dryer outlet humidity relationship, a predetermined dryer inlet air temperature to drum moisture relationship, and a predetermined dryer outlet air temperature to drum moisture relationship.

2. (currently amended) A method of limiting current, said method comprising:

providing an AC sine wave to at least one heater element of an electric clothes dryer;

stopping said providing at a zero crossing of the AC sine wave;

monitoring the AC sine wave for a subsequent zero crossing;

reproviding the AC sine wave to the at least one heater element at the subsequent zero crossing, wherein said reproviding comprises reproviding the AC sine wave to the at least one

heater element at a zero crossing immediately subsequent the zero crossing at which the AC sine wave was stopped; and

monitoring a dryer inlet air temperature, a dryer outlet air temperature, a dryer outlet humidity, and a moisture level within the dryer drum to control ~~controlling~~ said stopping and said reproviding to maintain one of a predetermined dryer inlet air temperature to dryer outlet humidity relationship, a predetermined dryer outlet air temperature to dryer outlet humidity relationship, a predetermined dryer inlet air temperature to drum moisture relationship, and a predetermined dryer outlet air temperature to drum moisture relationship.

3. (canceled)

4. (previously presented) A method in accordance with Claim 1 wherein said controlling comprises controlling said stopping and said reproviding with a controller based on an input signal from a temperature sensor.

5. (previously presented) A method in accordance with Claim 1 wherein said controlling comprises controlling said stopping and said reproviding with a controller based on an input signal from a humidity sensor.

6. (previously presented) A method in accordance with Claim 1 wherein said controlling comprises controlling said stopping and said reproviding with a controller based on an input signal from a clothing moisture sensor.

7. (previously presented) A method in accordance with Claim 2 wherein said controlling comprises controlling said stopping and said reproviding with a controller based on an input signal from a temperature sensor and a humidity sensor.

8. (previously presented) A method in accordance with Claim 2 wherein said controlling comprises controlling said stopping and said reproviding with a controller based on an input signal from a temperature sensor and a clothing moisture sensor.

9. (previously presented) A method in accordance with Claim 2 wherein said controlling comprises controlling said stopping and said reproviding with a controller based on an input signal from a humidity sensor and a clothing moisture sensor.

10. (currently amended) An electric clothes dryer heater system comprising:

a heater element; ~~and~~

a dryer inlet air temperature sensor;

a dryer outlet air temperature sensor;

a dryer outlet humidity sensor;

a dryer drum moisture sensor;

a controller operationally coupled to said heater, said dryer inlet air temperature sensor, said dryer outlet air temperature sensor, said dryer outlet humidity sensor, and said dryer drum moisture sensor, said controller configured to:

provide an AC sine wave to at least one heater element of an electric clothes dryer;

stop said providing at a zero crossing of the AC sine wave;

monitor the AC sine wave for a subsequent zero crossing; and

reprovide the AC sine wave to the at least one heater element at the subsequent zero crossing, wherein to reprovide the AC sine wave to said at least one heater element, said controller configured to reprovide at a zero crossing more than two half cycles subsequent the zero crossing at which the AC sine wave was stopped;

wherein said AC sine wave is stopped and reprovided to maintain one of a predetermined dryer inlet air temperature to dryer outlet humidity relationship, a predetermined dryer outlet air

temperature to dryer outlet humidity relationship, a predetermined dryer inlet air temperature to drum moisture relationship, and a predetermined dryer outlet air temperature to drum moisture relationship based on signals from said dryer inlet air temperature sensor, said dryer outlet air temperature sensor, said dryer outlet humidity sensor, and said dryer drum moisture sensor.

11. (currently amended) An electric clothes dryer heater system comprising:

a heater element; ~~and~~

a dryer inlet air temperature sensor;

a dryer outlet air temperature sensor;

a dryer outlet humidity sensor;

a dryer drum moisture sensor;

a controller operationally coupled to said heater, said dryer inlet air temperature sensor, said dryer outlet air temperature sensor, said dryer outlet humidity sensor, and said dryer drum moisture sensor, said controller configured to:

provide an AC sine wave to at least one heater element of an electric clothes dryer;

stop said providing at a zero crossing of the AC sine wave;

monitor the AC sine wave for a subsequent zero crossing; and

reprovide the AC sine wave to the at least one heater element at the subsequent zero crossing, wherein to reprovide the AC sine wave to said at least one heater element, said controller configured to reprovide at a zero crossing immediately subsequent the zero crossing at which the AC sine wave was stopped;

wherein said AC sine wave is stopped and reprovided to maintain one of a predetermined

dryer inlet air temperature to dryer outlet humidity relationship, a predetermined dryer outlet air temperature to dryer outlet humidity relationship, a predetermined dryer inlet air temperature to drum moisture relationship, and a predetermined dryer outlet air temperature to drum moisture relationship based on signals from said dryer inlet air temperature sensor, said dryer outlet air temperature sensor, said dryer outlet humidity sensor, and said dryer drum moisture sensor.

12. (canceled)

13. (original) A system in accordance with Claim 10 wherein said controller configured to stop and reprovide the AC sine wave based on an input signal from a temperature sensor.

14. (original) A system in accordance with Claim 10 wherein said controller configured to stop and reprovide the AC sine wave based on an input signal from a humidity sensor.

15. (original) A system in accordance with Claim 10 wherein said controller configured to stop and reprovide the AC sine wave based on an input signal from a clothing moisture sensor.

16. (currently amended) A dryer for tumble drying articles comprising:

a drum comprising a cavity configured to hold articles to be dried;

a motor drivingly coupled to said drum to rotate said drum;

a heater element in flow communication with said cavity;

a dryer inlet air temperature sensor;

a dryer outlet air temperature sensor;

a dryer outlet humidity sensor;

a dryer drum moisture sensor;

a blower positioned to deliver heated air to said cavity; and

a controller operationally coupled to said heater, said dryer inlet air temperature sensor, said dryer outlet air temperature sensor, said dryer outlet humidity sensor, and said dryer drum moisture sensor, said controller configured to:

provide an AC sine wave to at least one heater element of an electric clothes dryer;

stop said providing at a zero crossing of the AC sine wave;

monitor the AC sine wave for a subsequent zero crossing; and

reprovide the AC sine wave to the at least one heater element at the subsequent zero crossing, wherein to reprovide the AC sine wave to said at least one heater element, said controller configured to reprovide at a zero crossing more than two half cycles subsequent the zero crossing at which the AC sine wave was stopped;

wherein said AC sine wave is stopped and reprovided to maintain one of a predetermined dryer inlet air temperature to dryer outlet humidity relationship, a predetermined dryer outlet air temperature to dryer outlet humidity relationship, a predetermined dryer inlet air temperature to drum moisture relationship, and a predetermined dryer outlet air temperature to drum moisture relationship based on signals from said dryer inlet air temperature sensor, said dryer outlet air temperature sensor, said dryer outlet humidity sensor, and said dryer drum moisture sensor.

17. (currently amended) A dryer for tumble drying articles comprising:

a drum comprising a cavity configured to hold articles to be dried;

a motor drivingly coupled to said drum to rotate said drum;

a heater element in flow communication with said cavity;

a dryer inlet air temperature sensor;

a dryer outlet air temperature sensor;

a dryer outlet humidity sensor;

a dryer drum moisture sensor;

a blower positioned to deliver heated air to said cavity; and

a controller operationally coupled to said heater, said dryer inlet air temperature sensor, said dryer outlet air temperature sensor, said dryer outlet humidity sensor, and said dryer drum moisture sensor, said controller configured to:

provide an AC sine wave to at least one heater element of an electric clothes dryer;

stop said providing at a zero crossing of the AC sine wave;

monitor the AC sine wave for a subsequent zero crossing; and

reprovide the AC sine wave to the at least one heater element at the subsequent zero crossing, wherein to reprovide the AC sine wave to said at least one heater element, said controller configured to reprovide at a zero crossing immediately subsequent the zero crossing at which the AC sine wave was stopped;

wherein said AC sine wave is stopped and reprovided to maintain one of a predetermined dryer inlet air temperature to dryer outlet humidity relationship, a predetermined dryer outlet air temperature to dryer outlet humidity relationship, a predetermined dryer inlet air temperature to drum moisture relationship, and a predetermined dryer outlet air temperature to drum moisture relationship based on signals from said dryer inlet air temperature sensor, said dryer outlet air temperature sensor, said dryer outlet humidity sensor, and said dryer drum moisture sensor.

18. (canceled)

19. (original) A dryer in accordance with Claim 16 wherein said controller configured to stop and reprovide the AC sine wave based on an input signal from a temperature sensor.

20. (original) A dryer in accordance with Claim 16 wherein said controller configured to stop and reprovide the AC sine wave based on an input signal from a humidity sensor.

21. (original) A dryer in accordance with Claim 16 wherein said controller configured to stop and reprovide the AC sine wave based on an input signal from a clothing moisture sensor.

22. (previously presented) A gas clothes dryer heater system comprising:

a linear gas valve;

a burner operationally coupled to said valve; and

a controller operationally coupled to said valve, said controller configured to:

control said valve in an on state such that said burner produces a first heat output; and

adjust said valve in the on state such that said burner produces a second heat output less than the first based on an input signal from a temperature sensor.

23. (original) A system in accordance with Claim 22 wherein said controller configured to adjust said valve to gradually vary the heat output of said burner.

24. (canceled)

25. (previously presented) A system in accordance with Claim 22 wherein said controller further configured to adjust said valve based on an input signal from a humidity sensor.

26. (previously presented) A system in accordance with Claim 22 wherein said controller

further configured to adjust said valve based on an input signal from a clothing moisture sensor.

27. (original) A dryer for tumble drying articles comprising:

a drum comprising a cavity configured to hold articles to be dried;

a motor drivingly coupled to the drum to rotate said drum;

a linear gas valve;

a burner operationally coupled to said valve and in flow communication with said cavity;

a blower positioned to deliver heated air to said cavity; and

a controller operationally coupled to said linear gas valve, said controller configured to:

control said valve in an on state such that said burner produces a first heat output; and

adjust said valve in the on state such that said burner produces a second heat output less than the first.

28. (original) A dryer in accordance with Claim 27 wherein said controller configured to adjust said valve based on an input signal from a temperature sensor.

29. (original) A dryer in accordance with Claim 27 wherein said controller configured to adjust said valve based on an input signal from a humidity sensor.

30. (original) A dryer in accordance with Claim 27 wherein said controller configured to adjust said valve based on an input signal from a clothing moisture sensor.